

## A NEW CHAMAESYCE FROM THE FLORIDA KEYS

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The oölite of the lower Florida Keys supports several endemic species of *Chamaesyce*, discovered there in the past decade. These are very sharply defined species with affiliations in the flora of the Bahamas, rather than in that of the Florida peninsula. An additional species is rather wide-spread in the pinelands of several of the islands. It may be named and described as follows:

✓ ***Chamaesyce keyensis*** Small, sp. nov. Plant erect, the stem usually branched at the base and above, woody, like the branches, pale, sometimes gray, finely pale-pubescent, the branches strict, erect or nearly so, leafy: leaves opposite; blades elliptic-ovate to elliptic, oval, or ovate, 3–9 mm. long, obtuse, entire, minutely pubescent, especially beneath, rounded at the base, short-petioled: involucre turbinate, a little over 1 mm. long, stout-peduncled, finely pubescent; glands transversely elliptic, 0.5 mm. wide; appendages white or pinkish, about as wide as the glands, undulate or crenulate: capsule globose-reniform, about 2 mm. wide, finely pubescent: seed ovoid, nearly 1 mm. long, slightly transversely wrinkled.—Sand-dunes and pinelands, lower Florida Keys.

Like its closest relative, *Chamaesyce scoparia*, *C. keyensis* is an erect woody stemmed plant with numerous leaves. The leaves, however, are veiny and pubescent and not parchment-like and glabrous. The involucre is turbinate and pubescent instead of hemispheric-campanulate and glabrous, while the gland-appendages are not as long. The capsule is globose-reniform instead of globose-ovoid. The type specimen, from pinelands on No Name Key, Florida, in the herbarium of the New York Botanical Garden, was collected by John K. Small, February 4, 1926, 7439.  
 ✓ NEW YORK BOTANICAL GARDEN.

## BOOK REVIEW

## THE FLORA OF THE CHICAGO AREA\*

We have attained to a new standard in the publication of local floras. From the old-fashioned, dry-as-dust list of scientific

\* An annotated flora of the Chicago area, with maps and many illustrations from photographs of topographic and plant features, by H. S. Pepon, B.S., M.D., head instructor in botany and agriculture, Lake View High School. Pages xxii + 554. Published by the Chicago Academy of Sciences, 1927. \$3.50.

names we have at last progressed to a graphically written, elegantly printed, beautifully illustrated flora, full of information for the professional botanist and equally replete with inspiration for the amateur. Surely the botanists of the Chicago region are to be envied on having available such a remarkable handbook, just as the author is to be complimented for its preparation and the Chicago Academy of Sciences for its publication.

The Chicago area has the shape of a broad crescent along the shore of Lake Michigan, which forms its eastern concave boundary. Its convex western and southern boundary leaves the shore near the Wisconsin-Illinois line and sweeps in a great curve through Elgin and Joliet, Illinois, and Crown Point, Indiana, again reaching the lake in the famous sand-dune country east of Gary. Its maximum dimensions are approximately thirty-five and eighty-five miles. The greater part of this area was occupied in early post-glacial time by Lake Chicago, and its western or southern boundary seldom passes far beyond the Valparaiso moraine. The area therefore does not coincide with any political division and is so diverse in its topography and physiography that it has been divided into six districts, each characterized by noteworthy differences in flora and vegetation.

No less than 134 pages are utilized for a discussion of the botanical features of these six regions. The discussion is primarily ecological in nature, but lacks the technical details of an ecological monograph, as a moment's comparison with the works of Cowles, Sherff, or Gates will show. This flora is not a monograph on ecology, however, and the non-technicality is a desideratum rather than a fault, while the graphic description of the vegetation is unusually clear and readable. This part is illustrated by six maps and by twenty-four full-page plates and seventeen smaller figures in half-tone, well chosen to present not only the leading aspects of the vegetation but attractive landscapes as well. Throughout this part the floristic and physical features of the region are correlated, and much additional information is given as to collecting localities, rare species, extinction of species, effects of urban development and agriculture, and other subjects of interest to the botanist. Considerable attention has been given to the need of wild-flower preservation, which must be urgent in a region of such extensive urban development.

The second part, including 385 pages, presents the flora of the

region, enumerating 53 ferns and fern-allies, 13 gymnosperms, 507 monocotyledons, and 1330 dicotyledons. This makes a total of 1903 forms, which may be either species, named varieties, or hybrids. Such a generously varied flora is obviously explained by the physical diversity of the region, in which prairies, forests, bogs, and dunes are well developed. Forty full-page plates and thirty-six figures illustrate as many species. The names accepted and used are those of Gray's Manual, but names according to the American Code are appended in every case where they differ, according to the treatment in the Illustrated Flora of Britton and Brown. Each species listed is accompanied by a brief statement of its habitat preferences and of some of its known stations. A feature of this part of the book is the keys to the families, genera, and species. These keys are ingeniously constructed to follow lines of least resistance, and should be very useful to amateurs who are interested in identifying their finds easily and quickly. They are not complete, however, stopping in difficult groups at the family, as the grasses and sedges, the genus, as *Solidago* and *Antennaria*, or a subgeneric group, as in *Polygonum*. A special key is provided for trees in their winter condition, illustrated by six plates showing twigs, buds, and leaf-scars. No distinction is made in typography between native and naturalized species and the text seldom makes their status clear. The largest families, with the number of forms for each, are Cruciferae, 61, Leguminosae, 76, Rosaceae, 94, Gramineae, 167, Cyperaceae, 183, and Compositae, 209.

A review is not complete without some attention to the defects of a book, no matter how heavily they may be outweighed by its virtues. Of typographical errors there are a few, such as *psychodes* for *psycodes* (p. 239) or Dycotyledons (p. 267). There are also a few inaccuracies of statement, such as terming the fruit of *Polygonum virginianum* a "bur-like contrivance" (p. 289). The accuracy of the taxonomic interpretation of the Chicago species is also open to question in a very few cases. Undoubtedly it is an advantage, for the purposes of the book, to refer the species to those recognized in the seventh edition of Gray's Manual, since that is followed in nomenclature and is evidently expected to serve as the standard reference for description. It is therefore preferable to know the wild yellow lily as *Lilium canadense* L. than to follow its recent segregation as *L. michiganense* Farwell.

On the other hand, to refer to a case with which the reviewer has some personal familiarity, there is no reason at all for the interpretation of the genus *Vernonia* to include *V. noveboracensis* and *V. glauca* in the Chicago area. And lastly, the reviewer, who has just returned unscathed from Cambridge, although completely without weapons of botanical offense or defense, must take exception to the attitude on page ix that the botanists of the country are divided nomenclatorially into two "more or less hostile groups." Differences of opinion and of procedure there are, certainly, but this can by no means be described as hostility, and it is regrettable that an amateur clientele should needlessly be given such an erroneous impression.

But the book as a whole is a fine production and a joy to look at, and it takes the reviewer back to his own botanizing expeditions over parts of the territory and pleasantly recalls his acquaintance with the author.

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#### TWO RECENT BOOKS ON THE VEGETATION OF SWITZERLAND

American ecologists can get a good idea of the thorough way in which their Swiss colleagues undertake vegetational studies by a perusal of two valuable books recently issued as parts 14 and 15 of the Beiträge zur geobotanischen Landesaufnahme, published by the Phytogeographical Commission of the Schweizerische Naturforschende Gesellschaft under the editorship of Dr. E. Rübel. In the first\* of these, 209 pages are devoted to a consideration of agricultural and forestal conditions over an area of about 430 square miles; in the second,† 760 pages are used for the description of the natural vegetation over an area of almost exactly 100 square miles. As a result any reader, no matter how slight his personal familiarity with Switzerland, inevitably feels that the descriptions must be trustworthy and accurate, as well as complete and detailed. Thousands of American tourists, many of them botanically inclined, have passed through these two areas, the one including the railway from the St. Gotthard tunnel north

\* Oechslin, Max. Die Wald- und Wirtschaftsverhältnisse im Kanton Uri. 209 pages, 29 figures, map. Hans Huber, Bern, 1927. Price 24 francs.

† Gams, Helmut. Von den Follateres zur Dent de Morcles. xii + 760 pages, 100 figures, map. Hans Huber, Bern, 1927. Price 48 francs.